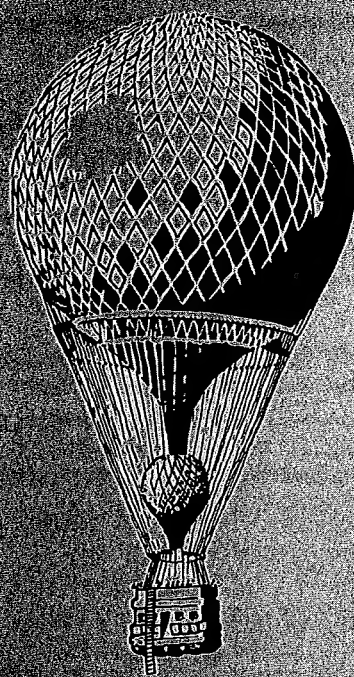


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BALLOON FLIGHT RECORD and Scheduled Balloon Flights



No. 24, Summer 1967

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Locations in this issue:

Albrook AFB, Canal Zone, Panama
Chico, California
Goodfellow AFB, Texas
Palisade, Texas
Tonopah, Nevada
Sioux Falls, South Dakota

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This Flight Record, which since 1962 has been carried in *Scientific Ballooning* and its successor, *Facilities for Atmospheric Research*, will henceforth be published separately. Distribution is made on request to the Publications Department, National Center for Atmospheric Research.

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BALLOON FLIGHT RECORD

Date (1967)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
Feb 27	Tonopah, Nev.	CEM*	CEM	GTS	69,000; GT-1012-2; dacron reinforced Mylar
Mar 7	Goodfellow AFB	AEC	AEC	USAF**	450,000; 1.5 mil
" 8	"	"	"	"	242,000; 1.5 mil
" 10	Albrook AFB	"	"	"	450,000; 1.5 mil
" 14	"	"	"	"	1.6 million; 1.5 mil
Mar 16	Goodfellow AFB	AEC	AEC	USAF**	1.5 million; 1.0 mil
" 16	Albrook AFB	"	"	"	242,000; 1.5 mil
" 21	Goodfellow AFB	"	"	"	10.6 million; 0.7 mil
" 22	"	"	"	"	1.6 million; 1.5 mil
Apr 1	Albrook AFB	"	"	"	5.3 million; 1.5 mil
Apr 2	Albrook AFB	AEC	AEC	USAF**	10.6 million; 0.7 mil
" 3	"	"	"	"	450,000; 1.5 mil
" 4	Goodfellow AFB	"	"	"	450,000; 1.5 mil
" 5	Albrook AFB	"	"	"	3.5 million; 0.8 mil
" 6	"	"	"	"	1.6 million; 1.5 mil
Apr 7	Albrook AFB	AEC	AEC	USAF**	242,000; 1.5 mil
" 7	Goodfellow AFB	"	"	"	242,000; 1.5 mil
" 22	"	"	"	"	1.6 million; 1.5 mil
" 27	Palestine	NASA	R. Vogt (Cal Tech)	NCAR	10.6 million; 0.5 mil; 150-lb tapes, capped
May 2	"	NASA, ONR	W. Webber (U. Minn.)	"	5 million; 0.75 mil
May 2	Goodfellow AFB	AEC	AEC	USAF**	1.6 million; 1.5 mil
" 3	"	"	"	"	450,000; 1.5 mil
" 7	Palestine	NASA	G. Chapman (ORNL)	NCAR	5 million; 0.75 mil; 150-lb tapes
" 8	Goodfellow AFB	AEC	AEC	USAF**	242,000; 1.5 mil
" 9	Sioux Falls	Raven	Raven	Raven	93,000; 1.5 mil
May 13	Sioux Falls	Raven	Raven	Raven	93,000; 1.5 mil
" 15	Goodfellow AFB	AEC	AEC	USAF**	3.5 million; 0.75 mil
" 15	Palestine	NASA	J. Overbeck (MIT)	NCAR	10.6 million; 0.5 mil; capped
" 16	"	NASA, ONR	W. Webber (U. Minn.)	"	2.94 million; 0.7 mil; 100-lb tapes
" 16	"	U. Bristol	P. Fowler (U. Bristol)	"	10.6 million; 0.7 mil; 200-lb tapes

* Continental Electronics Mfg. Co.

** Detachment 31, 6th Weather Wing

Float altitude (ft)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
17,000	5	---	Balloon-antenna system	Tethered flight successful
87,300	5.1	367	Particulate debris sampling	Successful flight
79,300	3.6	361	"	"
89,600	4.6	395	"	"
104,600	4.9	445	"	"
104,700	5.1	575	Particulate debris sampling	Successful flight
80,600	4.3	390	"	"
131,800	6.3	628	"	"
104,000	5.5	419	Hydrazine sampler	"
---	1.3	466	Particulate debris sampling	Balloon burst at 58,000 ft
130,600	7.2	517	Particulate debris sampling	Successful flight
89,100	4.9	396	"	"
90,100	5.3	356	"	"
119,000	7.9	599	"	"
106,200	5.5	463	"	"
77,400	3.3	399	Particulate debris sampling	Successful flight
79,000	3.7	360	"	"
105,000	3.7	488	"	Overinflated balloon; sampled outside prescribed altitude limits
139,100	9	744	Primary cosmic radiation spectra	Successful flight
123,400	9.8	690	Cygnus X-ray source	"
103,600	5.4	497	Particulate debris sampling	Successful flight
89,900	5.2	357	"	"
117,000	3.5	1098	Gamma ray background; instrument evaluation	"
79,200	4.3	364	Particulate debris sampling	"
70,000	12	300	Instrumentation check	"
70,000	8	300	Instrumentation check	Successful flight
---	1.6	611	Particulate debris sampling	Balloon failed at 59,000 ft
136,500	10.1	718	X-ray fluxes	Successful flight
118,500	7.1	492	Cygnus X-ray source	"
---	---	1153	Nuclear emulsions exposure	Flight terminated early

BALLOON FLIGHT RECORD

Date (1967)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
May 17	Goodfellow AFB	AEC	AEC	USAF**	1.49 million; 1.0 mil
" 17	Palestine	U. Bristol	P. Fowler (U. Bristol)	NCAR	10.6 million; 0.7 mil; 100-lb tapes
" 18	"	NCAR, NASA	A. Morris (NCAR)	"	80,000; 1.0 mil; 150-lb tapes
" 22	"	U. Bristol	P. Fowler (U. Bristol)	"	10.6 million; 0.5 mil; 100-lb tapes
" 23	"	NASA	J. Klarmann (Wash. U.)	"	10.6 million; 0.5 mil; 100-lb tapes, capped
May 23	Goodfellow AFB	AEC	AEC	USAF**	10.6 million; 0.7 mil
" 24	Palestine	NASA	J. Overbeck (MIT)	NCAR	9 million; 0.75 mil; 150-lb tapes
" 28	"	"	E. Chupp (UNH)	"	3 million; 0.55 mil
" 29	"	"	"	"	2.94 million; 0.5 mil; 100-lb tapes
June 3	"	NASA, ONR	W. Webber (U. Minn.)	"	2.94 million; 0.7 mil; 100-lb tapes
June 4	Palestine	AFOSR	R. Haymes (Rice U.)	NCAR	10.6 million; 0.7 mil; 300-lb tapes, capped
" 4	"	NASA	L. Peterson (UCSD)	"	3 million; 0.75 mil; 250-lb tapes
" 7	"	"	"	"	6 million; 0.5 mil; 150-lb tapes
" 8	"	"	E. Chupp (UNH)	"	2.94 million; 0.5 mil; 100-lb tapes
" 9	"	NSF	R. Huggett (LSU)	"	10.6 million; 0.9 mil; 500-lb tapes
June 9	Palestine	NASA	C. Hemenway (Dudley Obs.)	NCAR	1.25 million; 1.0 mil; 100-lb tapes
" 13	"	"	L. Peterson (UCSD)	"	10.6 million; 0.5 mil; 100-lb tapes, capped
" 14	"	"	E. Chupp (UNH)	"	2.94 million; 0.5 mil; 100-lb tapes
" 15	"	"	L. Peterson (UCSD)	"	2.94 million; 0.6 mil; 100-lb tapes
" 15	"	NCAR, NASA	A. Morris (NCAR)	"	18,000; 0.75 mil
" 19	"	NASA	J. Overbeck (MIT)	"	9 million; 0.75 mil; 150-lb tapes
" 26	"	"	"	"	10.6 million; 0.5 mil; 100-lb tapes, capped
" 27	"	ONR	J. Waddington (U. Minn.)	"	10.6 million; 0.5 mil; capped

** Detachment 31, 6th Weather Wing

Float altitude (ft)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
101,900	5.4	701	Hydrazine sampler	Successful flight
133,500-128,400	19.6	891	Nuclear emulsions exposure	"
---	---	226	Long duration tracking (Nimbus-B)	Balloon burst at 68,000 ft
131,500	16.1	991	Nuclear emulsions exposure	Successful flight
135,800	6.4	854	Emulsions and spark chamber by gamma ray	"
136,000	6.1	655	Particulate debris sampling	Successful flight
131,400	12.4	723	X-ray fluxes	"
---	---	301	Gamma ray measurement	Balloon burst near end of inflation
127,800	8	296	"	Gondola telemetry failed; flight terminated early
118,600	10.5	515	Cygnus X-ray source	Successful flight
128,800	8	1139	Gamma ray emission from Crab Nebula	Successful flight
119,200	12	386	Gamma ray anisotropics across galactic plane	"
132,200-120,000	6	518	Gamma ray emission from Crab Nebula	"
126,300	5.5	313	Gamma ray measurement	Loss of telemetry in gondola; flight terminated early
117,600	18	1860	Interactions of ultra-high energy particles	Successful flight
109,500	18.8	272	Meteoritic dust collection	Successful flight
---	---	763	Gamma ray emission from Scorpius XR1	Balloon leveled at 95,200 ft; flight terminated early
128,500	8.1	301	Gamma ray measurement	Successful flight
122,800	16.2	398	Gamma ray anisotropics across galactic plane	"
84,400	18.8	344	Long duration tracking (Nimbus-B)	Severe thunderstorms and hail; flight terminated early
---	---	702	X-ray flux measurement with oriented gondola	Balloon burst at 63,200 ft
134,600	8.6	812	"	Successful flight
---	---	1037	High energy gamma rays	Ascent to 130,000 ft; flight terminated at 65,000 ft

Scheduled Balloon Flights

Date (1967)	Location	Sponsor	Investigator	Flight operation conducted by	Balloon specs (volume in cu ft; polyethylene unless specified)
July	Palestine	ONR	J. Waddington (U. Minn.)	NCAR	10.6 million; 0.5 mil
"	"	NASA	R. Novick (Columbia U.)	"	450,000; 0.5 mil
"	"	"	W. Kraushaar (U. Wis.)	"	3.5 million; 0.75 mil
"	"	NCAR	D. Ehhalt (NCAR)	"	1.6 million; 1.0 mil
"	"	NASA	K. Stefan (NCAR)	"	2.94 million; 1.5 mil
July	Palestine	NASA	K. Stefan (NCAR)	NCAR	9.0 million; 0.75 mil
"	"	"	"	"	3.0 million; variable
"	"	"	W. Hoffmann (GSFC-ISS)	"	1.18 million; 0.6 mil
"	"	NSF	R. Huggett (LSU)	"	4.5 million; 1.5 mil
"	"	NASA	E. Boldt (GSFC)	"	10.6 million; 0.5 mil
July	Palestine	NRL	G. Fazio (Smithsonian)	NCAR	10.6 million; 0.5 mil
"	"	AFOSR	R. Haymes (Rice U.)	"	10.6 million; 0.7 mil
"	"	NASA	J. Arnold (UCSD)	"	360,000; 1.5 mil
"	"	"	L. Peterson (UCSD)	"	10.6 million; 0.5 mil
"	Chico	"	L. Alvarez (U. Calif.)	GTS	top - 255,000; main - 9 million, 0.35 mil, Mylar
Aug	Palestine	NASA	K. Frost (GSFC)	NCAR	10.6 million; 0.7 mil
"	"	"	R. Bettinger (U. Md.)	"	5.0 million; 0.75 mil
"	"	"	G. Frye (Case Inst.)	"	1.5 million; 0.75 mil
"	"	"	I. Glass (MIT)	"	10.6 million; 0.5 mil
"	"	"	C. Hemenway (Dudley Obs.)	"	1.25 million; 1.0 mil
Aug	Palestine	NASA	G. Chapman (ORNL)	NCAR	5 million; 0.75 mil
"	"	"	A. Womack (MIT)	"	6 million; 0.5 mil
"	"	NSF	K. Anderson (U. Calif.)	"	5 million; 0.75 mil
Sept	"	"	J. Lord (U. Wash.)	"	600,000; 0.75 mil
"	"	NASA	J. Klarmann (Wash. U.)	"	10.6 million; 0.5 mil
Sept	Palestine	NASA	T. Gehrels (U. Ariz.)	NCAR	5 million; 0.75 mil
"	"	"	J. Sparkman (NCAR)	"	111,000 and 2.94 million; 1.5 mil
"	"	"	R. Sullivan (MIT)	"	10.6 million; 0.5 mil
"	"	"	A. Morris (NCAR)	"	180,000; 0.75 mil
"	"	NRL, ONR	B. Stiller (NRL)	"	10.6 million; 0.7 mil

Float altitude (ft)	Flight duration (hr)	Payload (lb)	Experiment	Remarks
133,000	6	600	Gamma ray astronomy	2 flights
100,000	2	100	X-ray background	"
120,000	8	500	Gamma ray spark chamber	3 flights
100,000	7	800	Air sampling	---
---	6.5	890	Down camera (R & D)	Double balloon system
130,000	4	550	Vista-Dome test (R & D)	Double balloon system
130,000	4	320	Sea-Space test (R & D)	---
110,000	10	125	Far infrared	4 flights
110,000	12	1200	Ultra-high energy particles	---
134,000	7	440	Solar X-rays	---
133,000	6	550	Solar neutrons; high-energy gamma rays	---
135,000	10	600	Gamma ray astronomy	---
80,000	14	500	Micrometeorites	2 flights
138,000	10	250	Gamma ray astronomy	"
90,000	---	10,000	High-energy particles	Tandem balloon system
135,000	7	400	Gamma ray astronomy	2 flights
120,000	10	500	Ozone distribution	---
110,000	10	350	High-energy neutrons	---
130,000	10	500	X-rays	---
112,000	14	40	Micrometeorites	---
120,000	8	600	X-rays	---
125,000	8	600	"	---
125,000	10	200	"	---
105,000	20	250	Nuclear emulsions	---
135,000	12	400	X-rays	---
120,000	12	500	Mariner	---
---	---	---	Stonehenge launch test	Tandem balloon system
133,000	8	400	Proportional counter	---
80,000	72	140	Tracking study	---
140,000	48	100	Nuclear emulsions	2 flights